Listing of the Claims

Please accept amended claims 1, 4, 6, 8, 9, 10, 11, 12, 14, 15, 18, 20, and 22 as follows:

1. (Currently Amended) A method of generating interrupts of a network interface card which transceives data, the method comprising:

(a) receiving data frames;

(b) determining a first time delay and a second time delay in response to a received data frame and counting a number of received data frames, wherein the second time delay is a time interval between ~~received~~reception times of two data frames and excludes processing times of the data frames;

(c) determining whether the first time delay has passed and generating an interrupt if the first time delay has passed;

(d) counting the number of data frames if the first time delay has not passed and generating the interrupt if the number of data frames equals N;

(e) determining whether the second time delay has passed if the number of data frames is not equal to N and generating the interrupt if the second time delay has passed, or going back to step (b) if the second time delay has not passed;

(f) stopping operations of determining the first and second time delays and counting the number of data frames in response to the interrupts generated, and transmitting the received data frames; and

(g) receiving a new data frame and going back to step (b).

2. (Original) The method of claim 1, wherein the first time delay starts from when a first data frame is received.

3. (Previously Presented) The method of claim 1, wherein the second time delay is shorter than the first time delay, and excludes times of the data frames.

4. (Currently Amended) A method of generating interrupts of a network interface card which transceives data, the method comprising:

(a) receiving data frames;

(b) determining a packet time delay in response to the received data frames;

(c) determining whether the packet time delay has passed, wherein the packet time delay ~~time~~ is a time interval between ~~received~~reception times of two data frames and excludes processing times of the data frames, and generating an interrupt if the packet time delay has passed, or going back to step (b) if the packet time delay has not passed;

(d) stopping an operation of determining the packet time delay and transmitting the received data frames; and

(e) receiving a new data frame and going back to step (b).

5. (Cancelled)

6. (Currently Amended) ~~A method of generating interrupts of a network interface card which transceives data, t~~The method of claim 4, further comprising:

~~(a) receiving data frames;~~

~~(b) determining a time delay in response to the received data frames,~~ counting a number of received data frames~~,~~ and recognizing a type field of the received data frames;

~~(c) determining whether the time delay has passed and generating an interrupt if the time delay has passed;~~

~~(d)~~ counting the number of received data frames and generating the interrupt if the number of received data frames is N;

~~(e)~~ determining whether the type field of the received data frames is identical to a predetermined type field if the number of data frames is not equal to N, generating the interrupt if the type field is identical to the predetermined type field, or going back to step (b) if the type field is not identical to the predetermined type field, wherein the type field includes information on the type of data of the received data frames; and

~~(f)~~ wherein the stopping further includes stopping operations of ~~determining the time delay,~~ counting the number of received data frames and recognizing the type field of the data frame in response to the interrupt generated.~~, and transmitting the received data frames; and~~

~~(g) receiving a new data frame and going back to step (b).~~

7. (Previously Presented) The method of claim 6, wherein the time delay starts from when the first data frame is received.

8. (Currently Amended) ~~A method of generating interrupts of a network interface card which transceives data, t~~The method of claim 4, further comprising:

~~(a) receiving data frames;~~

~~(b)~~ recognizing a type field of the received data frames;

~~(c)~~ determining whether the type field of the received data frames is identical to a predetermined type field and generating an interrupt if the type field is identical to the predetermined type field or going back to step (b) if the type field is not identical to the predetermined type field, wherein the type field includes information on the type of data of the received data frames; and

~~(d)~~ wherein the stopping further includes stopping an operation of recognizing the type field of the received data frames in response to the generated interrupt ~~and transmitting the received data frames.; and~~

~~(e) receiving a new data frame and going back to step (b).~~

9. (Currently Amended) ~~A method of generating interrupts of a network interface card which transceives data, t~~The method of claim 4, further comprising:

~~(a) receiving data frames;~~

~~(b) determining a time delay in response to the received data frames,~~ counting a number of received data frames, and recognizing a protocol field of a packet header in a data field of the received data frames;

~~(c) determining whether the time delay has passed and generating an interrupt if the time delay has passed;~~

~~(d)~~ determining whether the number of received data frames is equal to N if the time delay has not passed and generating the interrupt if the number of data frames is equal to N;

~~(e)~~ determining whether the protocol field is identical to a predetermined protocol field if the number of received data frames is not equal to N and generating the interrupt if

the protocol field is identical to the predetermined protocol field, or going back to step (b) if the protocol field is not identical to the predetermined protocol field; and

~~(f)~~ wherein the stopping further includes stopping operations of ~~determining the time delay,~~ counting the number of received data frames and recognizing the protocol field in response to the generated interrupts~~, and transmitting the received data frames; and~~

~~(g) receiving a new data frame and going back to step (b).~~

10. (Currently Amended) The method of claim of claim 9, wherein the ~~first~~ time delay starts from when a first data frame is received.

11. (Currently Amended) ~~A method of generating interrupts of a network interface card which transceives data, t~~The method of claim 4, further comprising:

~~(a) receiving data frames;~~

~~(b)~~ recognizing a protocol field of a packet header in a data field of the received data frames;

~~(c)~~ determining whether the protocol field is identical to a predetermined protocol field and generating an interrupt if the protocol field is identical to the predetermined protocol field, or going back to step (b) if the protocol field is not identical to the predetermined protocol field; and

~~(d)~~ wherein the stopping further includes stopping an operation of recognizing the protocol field~~, and transmitting the received data frames; and~~

~~(e) receiving a new data frame and going back to step (b).~~

12. (Currently Amended) ~~A method of generating interrupts of a network interface card which transceives data, t~~The method of claim 4, further comprising:

~~(a) receiving data frames;~~

~~(b)~~ determining a ~~first time delay and a~~ second time delay in response to the received data frames, counting a number of received data frames, recognizing a type field of the received data frames, wherein the type field includes information on the type of data of the received data frames, and recognizing a protocol field of a packet header in a data field of the received data frames;

~~(c) determining whether the first time delay has passed and generating an interrupt if the first time delay has passed;~~

~~(d)~~ counting the number of received data frames if the ~~first~~packet time delay has not passed and generating the interrupt if the number of received data frames is equal to N;

~~(e)~~ determining whether the second time delay has passed if the number of received data frames is not equal to N and generating the interrupt if the second time delay has passed;

~~(f)~~ determining whether the type field of the received data frames is identical to a predetermined type field if the second time delay has not passed and generating the interrupt if the type field is identical to the predetermined type field;

~~(g)~~ determining whether the protocol field of the received data frames is identical to a predetermined protocol field if the type field is not identical to the predetermined type field and generating the interrupt if the protocol field is identical to the predetermined protocol field, or going back to step (b) if the protocol field is not identical to the predetermined protocol field; and

~~(h)~~ wherein the stopping further includes stopping operations of determining the ~~first time delay and~~ the second time delay, counting the number of received data frames and recognizing the type field and the protocol field of the data frames in response to the generated interrupt.~~, and transmitting the received data frames; and~~

~~(i) receiving a new data frame and going back to step (b).~~

13. (Original) The method of claim 12, wherein the first time delay starts from when a first data frame is received.

14. (Currently Amended) The method of claim 12, wherein the second time delay ~~is a time interval between the received data frames,~~ is shorter than the first time delay~~, and excludes times of the data frames~~.

15. (Currently Amended) A network interface card, which minimizes the number of times where interrupts are generated, the network interface card comprises:

a first time delay determining circuit, which determines a first time delay in

response to received data frames and stops determining the first time delay in response to an interrupt;

a second time delay determining circuit, which determines a second time delay in response to the received data frames and stops determining the second time delay in response to the interrupt, wherein the second time delay is a time interval between ~~received~~reception times of two data frames and excludes processing times of the data frames;

a data frame counting circuit, which counts a number of received data, frames in response to the received data frames and stops counting the data frames in response to the interrupt;

a determining circuit which determines whether the time reaches the first time delay in response to an output signal of the first time delay determining circuit, determines whether the time reaches the second time delay in response to an output signal of the second time delay determining circuit, determines whether the number of received data frames is equal to N in response to an output signal of the data frame counting circuit, and generates an interrupt control signal for controlling generation of the interrupt; and

an interrupt generating circuit which generates the interrupt in response to the interrupt control signal.

16. (Previously Presented) The network interface card of claim 15, wherein the first time delay is determined from when a first data frame is received.

17. (Previously Presented) The network interface card of claim 15, wherein the second time delay is shorter than the first time delay.

18. (Currently Amended) A network interface card, which minimizes the number of times where interrupts are generated, the network interface card comprises:

time first delay determining circuit, which determines a first time delay in response to received data frames and stops determining the first time delay in response to an interrupt;

a second time delay determining circuit, which determines a second time delay in

response to the received data frames and stops determining the second time delay in response to the interrupt, wherein the second time delay is a time interval between ~~received~~reception times of two data frames and excludes processing times of the data frames;

a type recognizing circuit, which recognizes a type field of data, frames in response to the received data frames and stops recognizing the type field in response to the interrupt;

a data frame counting circuit, which counts a number of received data, frames in response to the received data frames and stops counting the number of received data frames in response to the interrupt;

a determining circuit which determines whether the first time delay has been reached in response to the output signal of the first time delay determining circuit, determines whether the second time delay has been reached in response to an output signal of the second time delay determining circuit, determines whether the number of received data frames is equal to N in response to an output signal of the data frame counting circuit, determines whether the type field recognized in response to an output signal of the type recognizing circuit is identical to a predetermined type field, and generates an interrupt control signal for controlling generation of the interrupt; and

an interrupt generating circuit which generates the interrupt in response to the interrupt control signal.

19. (Previously Presented) The network interface card of claim 18, wherein the first time delay starts from when a first data frame is received.

20. (Currently Amended) A network interface card, which minimizes the number of times where interrupts are generated, the network interface card comprises:

a first time delay determining circuit, which determines a first time delay in response to received data frames and stops determining the first time delay in response to an interrupt;

a second time delay determining circuit, which determines a second time delay in response to the received data frames and stops determining the second time delay in

response to the interrupt, wherein the second time delay is a time interval between ~~received~~reception times of two data frames and excludes processing times of the data frames;

a protocol recognizing circuit which recognizes a protocol field of a packet header in a data field of the received data frames in response to the received data frames and stops recognizing the protocol field in response to the interrupt;

a data frame counting circuit, which counts a number of received data, frames in response to the received data frames and stops counting the number of received data frames in response to the interrupt;

a determining circuit which determines whether the first time delay has been reached in response to the output signal of the first time delay determining circuit, determines whether the second time delay has been reached in response to an output signal of the second time delay determining circuit, determines whether the number of received data frames is equal to N in response to an output signal of the data frame counting circuit, determines whether the protocol field recognized in response to an output signal of the type recognizing circuit is identical to a predetermined type field, and generates an interrupt control signal for controlling generation of the interrupt; and

an interrupt generating circuit which generates the interrupt in response to the interrupt control signal.

21. (Previously Presented) The method of claim 18, the first time delay is determined from when a first data frame is received.

22. (Currently Amended) The~~A~~ network interface card of claim 20, further~~which minimizes the number of times where interrupts are generated, the network interface card~~ comprises:

~~a first time delay determining circuit, which determines a first time delay in response to received data frames and stops determining the first time delay in response to an interrupt;~~

~~a second time delay determining circuit, which determines a second time delay in response to the received data frames and stops determining the second time delay in~~

~~response to the interrupt;~~

a type recognizing circuit, which recognizes a type field of data frames in response to the received data frames and stops recognizing the type field in response to the interrupt, wherein the type field includes information on the type of data of the received data frames; and

~~a data frame counting circuit, which counts a number of received data frames in response to the received data frames and stops counting the number of received data frames in response to the interrupt;~~

~~a protocol recognizing circuit which recognizes a protocol field of a packet header in a data field of the received data frames in response to the received data frames and stops recognizing the protocol field in response to the interrupt;~~

wherein the~~a~~ determining circuit further~~which~~ determines ~~whether the first time delay has passed in response to the output signal of the first time delay determining circuit, determines whether the second time delay has passed in response to an output signal of the second time delay determining circuit, determines~~ whether the type field recognized in response to an output signal of the type recognizing circuit is identical to a predetermined type field.~~, determines whether the number of received data frames is equal to N in response to an output signal of the data frame counting circuit, determines whether the protocol field recognized by the protocol recognizing circuit in response to an output signal of the protocol recognizing circuit and generates an interrupt control signal for controlling generation of the interrupt; and~~

~~an interrupt generating circuit which generates the interrupt in response to the interrupt control signal.~~

23. (Original) The network interface card of claim 22, wherein the first time delay starts from when a first data frame is received.

24. (Previously Presented) The network interface card of claim 22, wherein the second time delay is shorter than the first time delay.

25. (Previously Presented) The network interface card of claim 15, the network

interface card further comprises:

a receiving circuit which receives data frames and transmits the received data frames to the first time delay determining circuit, the second time delay circuit, and the data frame counting circuit; and

a transmitting circuit which receives and transmits the interrupt.

26. (Previously Presented) The network interface card of claim 18, the network interface card further comprises:

a receiving circuit which receives data frames and transmits the received data frames to the first time delay determining circuit, the data frame counting circuit, and the type recognizing circuit; and

a transmitting circuit which receives and transmits the interrupt.

27. (Previously Presented) The network interface card of claim 20, the network interface card further comprises:

a receiving circuit which receives data frames and transmits the received data frames to the first time delay determining circuit, the data frame counting circuit, and the protocol recognizing circuit; and

a transmitting circuit which receives and transmits the interrupt.

28. (Previously Presented) The network interface card of claim 22, the network interface card further comprises:

a receiving circuit which receives data frames and transmits the received data frames to the first time delay determining circuit, the second time delay circuit, the data frame counting circuit, the type recognizing circuit, and the protocol recognizing circuit; and

a transmitting circuit which receives and transmits the interrupt.